

Application No.: 10/511,322  
Art Unit 3753

Attorney Docket No. 4140-0111PUS1  
Reply to Office Action dated December 8, 2008  
Page 9

**REMARKS**

Applicants thank the Examiner for the very thorough consideration given the present application.

Claims 1 and 3-21 are now present in this application. Claims 1, 11 and 12 are independent. By this Amendment, claims 1 and 11 are amended, and claims 12-21 are added. No new matter is involved.

Reconsideration of this application, as amended, is respectfully requested.

**Rejection Under 35 U.S.C. § 102**

Claims 1, 3-5 and 10 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 4,056,965 to Heiser. This rejection is respectfully traversed.

A complete discussion of the Examiner's rejection is set forth in the Office Action and is not being repeated here.

Claim 1, as amended, recites a valve for controlling fluid flow in a main fluid flow path, comprising a valve body having an inlet and outlet port for fluid flow from a fluid pressure source and a flexible conduit which extends along a greater portion of the extended length path, wherein the flexible tube also forms a valve seal closure member constrained to engage only a non-porous valve seat which extends along only a minor portion of the extended length of the extended length path in the closed position of the valve; a control port in the valve body for providing a control fluid acting to maintain the flexible valve seal closure member in the closed position under a pressure differential as between that applied to one side of the flexible closure member by said fluid flow through the inlet port acting to lift the flexible valve seal closure

JTE/RJW/jmc

Application No.: 10/511,322  
Art Unit 3753

Attorney Docket No. 4140-0111PUS1  
Reply to Office Action dated December 8, 2008  
Page 10

member off the valve seat, and that applied on the other side of the flexible valve seal closure member through said control port to close the valve; and control means for varying said differential pressure to control movements of the flexible valve closure member and regulate fluid flow through the valve.

Claim 11, as amended, recites a valve for controlling fluid flow comprising a valve body having an inlet and outlet port for fluid flow from a fluid pressure source; a substantially non-porous valve seat mounted between the inlet and outlet ports, the substantially non-porous valve seat having a flexible valve closure member constrained to engage only the substantially non-porous valve seat in the closed position of the valve; a control port in the valve body for providing a control fluid acting to maintain the flexible valve closure member in the closed position under a pressure differential as between that applied to one side of the flexible closure member by said fluid flow through the inlet port acting to lift the flexible closure member off the valve seat, and that applied on the other side of the flexible closure member through said control port to close the valve; and control means for varying said differential pressure to control movements of the flexible valve closure member and regulate fluid flow through the valve.

Applicants respectfully submit that Heiser does not disclose these claimed combinations of features. Heiser's flexible conduit forms a valve seal closure member that engages not only its non-porous valve seat, but also the extended stationary or fixed porous valve elements and, as a result, Heiser's flexible conduit engages far more than only the non-porous valve seat member which extends along only a minor portion of the extended length of the extended length path.

Applicants also note that the statement on page 6 of the Office Action that elements 50 and 52 are mere filter elements is not supported by the disclosure of Heiser, which describes them as

JTE/RJW/jmc

Application No.: 10/511,322  
Art Unit 3753

Attorney Docket No. 4140-0111PUS1  
Reply to Office Action dated December 8, 2008  
Page 11

stationary or fixed valve members, and these valve members clearly form a substantial part of the main path (route) of the fluid through the valve.

Accordingly, Heiser does not disclose the invention recited in claim 1.

Moreover, because claims 3, 5 and 10 depend from claim 1, these claims also are not anticipated by Heiser.

Claim 4 depends from claim 11 and patentably defines over Heiser at least because claim 4, based on its dependency from claim 11, positively recites that the valve seat is a substantially non-porous valve seat. Heiser's valve seat, which is made up of elements 48a, 50a and 52a, is just the opposite, i.e., is substantially porous.

The Office Action states that Fig. 4 of Heiser anticipates claim 11. Applicants respectfully disagree with this conclusion because Heiser's valve seat is not just a circular disk 48a, as asserted in the rejection, but is actually made of porous elements 50a and 52a. The only way that fluid can pass from inlet 32a to outlet 32b is as shown by the arrows in Fig. 4, which is through the porous valve elements 50a and 52a, which, with the edge circular disk 48a, form the valve seat.

Accordingly, Heiser does not anticipate claim 11, or claim 4, which depends from claim 11.

Thus, the Office Action fails to make out a *prima facie* case of anticipation of the invention recited in claims 1, 3-5 and 10-11 by Heiser.

Reconsideration and withdrawal of this rejection of claims 1, 3-5 and 10-11 are respectfully requested.

JTE/RJW/jmc

Application No.: 10/511,322  
Art Unit 3753

Attorney Docket No. 4140-0111PUS1  
Reply to Office Action dated December 8, 2008  
Page 12

Rejections under 35 U.S.C. § 103

Claims 6-8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Heiser in view of U.S. Patent 4,300,748 to Kreeley. This rejection is respectfully traversed.

Because the rejection is based on 35 U.S.C. § 103, what is in issue in such a rejection is "the invention as a whole," not just a few features of the claimed invention. Under 35 U.S.C. § 103, "[a] patent may not be obtained . . . if the differences between the subject matter sought to be patented and the prior art are such that the subject matter *as a whole* would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." The determination under Section 103 is whether the claimed invention *as a whole* would have been obvious to a person of ordinary skill in the art at the time the invention was made. *See In re O'Farrell*, 853 F.2d 894, 902, 7 USPQ2d 1673, 1680 (Fed. Cir. 1988). In determining obviousness, the invention must be considered as a whole and the claims must be considered in their entirety. *See Medtronic, Inc. v. Cardiac Pacemakers, Inc.*, 721 F.2d 1563, 1567, 220 USPQ 97, 101 (Fed. Cir. 1983).

In rejecting claims under 35 U.S.C. § 103, it is incumbent on the Examiner to establish a factual basis to support the legal conclusion of obviousness. *See In re Fine*, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the Examiner is expected to make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one of ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. *Uniroyal Inc.*

JTE/RJW/jmc

Application No.: 10/511,322  
Art Unit 3753

Attorney Docket No. 4140-0111PUS1  
Reply to Office Action dated December 8, 2008  
Page 13

*v. F-Wiley Corp.*, 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir. 1988), *cert. denied*, 488 U.S. 825 (1988); *Ashland Oil, Inc. v. Delta Resins & Refactories, Inc.*, 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), *cert. denied*, 475 U.S. 1017 (1986); *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the Examiner are an essential part of complying with the burden of presenting a *prima facie* case of obviousness. *See In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. *In re Fritch*, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1783 84 (Fed. Cir. 1992). To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be suggested or taught by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1970). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

A suggestion, teaching, or motivation to combine the prior art references is an "essential evidentiary component of an obviousness holding." *C.R. Bard, Inc. v. M3 Sys. Inc.*, 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998). This showing must be clear and particular, and broad conclusory statements about the teaching of multiple references, standing alone, are not "evidence." *See In re Dembiczak*, 175 F.3d 994 at 1000, 50 USPQ2d 1614 at 1617 (Fed. Cir. 1999).

Moreover, it is well settled that the Office must provide objective evidence of the basis used in a prior art rejection. A factual inquiry whether to modify a reference must be based on objective evidence of record, not merely conclusory statements of the Examiner. *See In re Lee*,

JTE/RJW/jmc

Application No.: 10/511,322  
Art Unit 3753

Attorney Docket No. 4140-0111PUS1  
Reply to Office Action dated December 8, 2008  
Page 14

277 F.3d 1338, 1343, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002).

Furthermore, during patent examination, the Patent Office bears the initial burden of presenting a *prima facie* case of unpatentability. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984). If the Patent Office fails to meet this burden, then the Applicants are entitled to the patent. Only when a *prima facie* case is made, the burden shifts to the Applicants to come forward to rebut such a case.

Initially, Applicants respectfully submit that claim 5, from which claims 6-8 depend, is not disclosed by Heiser, for the reasons discussed above.

Nor is Kreeley applied to remedy the aforesited deficiencies of Heiser. So, even if one of ordinary skill in the art had a proper incentive to modify Heiser in view of the secondary reference to Kreeley, the so-modified version of Heiser would neither disclose, suggest, nor otherwise render obvious the claimed invention.

More significantly, Kreeley operates opposite to what is claimed in that Kreeley's pilot valve is used to lower the pressure in line 39 and clearly does not result in supplementing the pressure in the annular space, as recited in claim 7, or in supplying a sufficient amount of fluid adequately to pressurise the annular space in a predetermined time, and a normally closed switch actuatable to vent the annular space and reduce pressure in the annular space whereby to open the valve, as recited in claim 6, for example.

Nor does Kreeley disclose or suggest use of a feedback valve between the control port and the outlet port for varying the pressure of fluid at the control port in response to an imbalance in pressure at the outlet port thereby to stabilise the pressure or fluid flow at the outlet port, as recited

JTE/RJW/jmc

Application No.: 10/511,322  
Art Unit 3753

Attorney Docket No. 4140-0111PUS1  
Reply to Office Action dated December 8, 2008  
Page 15

in claim 8.

Accordingly, the Office Action does not make out a *prima facie* case of obviousness of the invention recited in claims 6-8.

Reconsideration and withdrawal of this rejection of claims 6-8 are respectfully requested.

Claim 9 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Heiser in view of Kreeley, as applied in the rejection of claim 8, and further in view of U.S. Patent 6,568,416 to Tucker et al. ("Tucker"), This rejection is respectfully traversed.

Initially, Applicants respectfully submit that claim 8, from which claim 9 depends, is not rendered obvious by Heiser in view of Kreeley for the reasons discussed above.

Nor is Tucker applied to remedy the aforesaid deficiencies of Heiser. So, even if one of ordinary skill in the art had a proper incentive to modify the Heiser-Kreeley reference combination in view of the secondary reference to Tucker, the so-modified version of Heiser-Kreeley would neither disclose, suggest, nor otherwise render obvious the claimed invention.

Accordingly, the Office Action does not make out a *prima facie* case of obviousness of the claimed invention.

Reconsideration and withdrawal of this rejection of claim 9 are respectfully requested.

**New Claims 12-21**

Claims 12-21 are added.

Claim 12 recites a valve having a combination of features, including a valve body having an inlet and outlet port for fluid flow from a fluid pressure source and a flexible conduit, wherein the

JTE/RJW/jmc

APR 02 2009

Application No.: 10/511,322  
Art Unit 3753Attorney Docket No. 4140-0111PUS1  
Reply to Office Action dated December 8, 2008  
Page 16

flexible conduit also forms a valve seal closure member and is the sole support structure for a valve seat element located within the flexible conduit. Applicants respectfully submit that this combination of features is not disclosed or suggested in the applied art.

Claim 13 recites a valve having a combination of features, including a valve seat element mounted between valve inlet and outlet ports, the valve seat located in a flexible conduit which forms a flexible valve closure member and which is the sole support structure of the valve seat element. Applicants respectfully submit that this combination of features is not disclosed or suggested in the applied art.

Claims 14-21 recite features similar to those recited in claims 1-8, which issued in the European Patent which corresponds to this Application. Applicants respectfully submit that these claims patentably define over the art applied to the previously rejected claims for reasons similar to those presented with respect to the traversal of the rejections of claims 1 and 3-11, and note that the applied art does not appear to disclose or suggest the claimed venting and repressurizing feature of claim 12.

Accordingly, consideration and allowance of claims 12-19 are respectfully requested.

Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance.

JTE/RJW/jmc

APR-02-2009 THU 06:22 PM BSKB FAX 401

FAX NO. 7032058050

P. 22/22

APR 02 2009

Application No.: 10/511,322  
Art Unit 3753

Attorney Docket No. 4140-0111PUS1  
Reply to Office Action dated December 8, 2008  
Page 17

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone Robert J. Webster, Registration No. 46,472, at (703) 205-8000, in the Washington, D.C. area.

Prompt and favorable consideration of this Amendment is respectfully requested.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Dated: APR 2 2009

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By: James T. Eller, Jr.

James T. Eller, Jr.  
Reg. No.: 39,538  
P.O. Box 747  
Falls Church, Virginia 22040-0747  
Telephone: (703)205-8000  
Attorney for Applicants

JTE/RJW/jmc